

C27H20

Inchi:	InChI=1S/C27H20/c1-4-12-20(13-5-1)25-23-18-10-11-19-24(23)26(21-14-6-2-7-15-21)27
InchiKey:	URBISKZYAXNRPC-UHFFFAOYSA-N
Formula:	C27H20
SMILES:	<chem>c1ccc(C2=C(c3ccccc3)C(c3ccccc3)c3ccccc32)cc1</chem>
Mol. weight [g/mol]:	344.45
CAS:	38274-35-0

Physical Properties

Property code	Value	Unit	Source
gf	687.92	kJ/mol	Joback Method
hf	441.68	kJ/mol	Joback Method
hfus	40.04	kJ/mol	Joback Method
hvap	86.99	kJ/mol	Joback Method
log10ws	-7.75		Crippen Method
logp	6.791		Crippen Method
mcvol	281.090	ml/mol	McGowan Method
pc	1787.88	kPa	Joback Method
tb	944.72	K	Joback Method
tc	1225.57	K	Joback Method
tf	555.99	K	Joback Method
vc	1.058	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	857.86	J/molxK	944.72	Joback Method
cpg	874.60	J/molxK	991.53	Joback Method
cpg	890.19	J/molxK	1038.34	Joback Method
cpg	904.88	J/molxK	1085.15	Joback Method
cpg	918.96	J/molxK	1131.96	Joback Method
cpg	932.70	J/molxK	1178.76	Joback Method
cpg	946.35	J/molxK	1225.57	Joback Method
dvisc	0.0008517	Paxs	555.99	Joback Method
dvisc	0.0005613	Paxs	620.78	Joback Method

dvisc	0.0004003	Paxs	685.57	Joback Method
dvisc	0.0003026	Paxs	750.36	Joback Method
dvisc	0.0002392	Paxs	815.14	Joback Method
dvisc	0.0001957	Paxs	879.93	Joback Method
dvisc	0.0001646	Paxs	944.72	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C38274350&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

<https://www.chemeo.com/cid/19-009-1/C27H20.pdf>

Generated by Cheméo on 2024-04-30 12:41:53.453267112 +0000 UTC m=+16770162.373844427.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.